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## ACUC Member Spotlight



**Dr. Scott Keimig**

Scott Keimig received his Ph.D. in Environmental Health from the University of Iowa College of Medicine in 1982, where he studied mammalian metabolism of carcinogenic polycyclic aromatic hydrocarbons in the lab of Donald Pryse Morgan. Prior to that he took an undergraduate degree in biology. He did postdoctoral work in the Center for the Assessment of Chemical and Physical Hazards at Brookhaven National Laboratory in New York before joining the NCI Environmental Research Laboratory for five years. Subsequently,

Dr. Keimig was appointed executive director of the Department of Environmental Health at Catholic University of America for five years, after which he returned to the NCI-Frederick where he is branch manager of occupational safety within EHS. Dr. Keimig has been on the NCI-Frederick ACUC since 1994 where he has supported the research faculty during the three most recent site visits by AAALAC. Over these 11 years, the AAALAC review teams have been escalating their evaluations of institutional control of employee health and safety risks in experimental animal protocols. It is Dr. Keimig's mission that future closeout reports by the site visit teams will uphold their prior findings that NCI-Frederick meets AAALAC occupational health and safety criteria. In addition to IACUC, Dr. Keimig has served on the Institutional Biosafety Committee, the SAIC Intellectual Property and Technology Transfer Group, the Campus Improvement Committee, and the Frederick Employee Diversity Team. In 2002, Dr. Keimig received his MBA from the University of Maryland's Smith School of Business with a concentration in management of science and technology. His course of study included management, biotechnology, intellectual property, and marketing of technology. He is board-certified in his profession and is a Diplomate of the American Academy of Industrial Hygiene. He and his wife of 31 years, Dr. Deborah Gellerman Keimig, reside in Braddock Heights. They share interests in woodland gardening, ecologic conservation, and travel. Dr. Keimig also teaches motorcycle safety for the Maryland Motor Vehicle Administration on weekends.

## Revised ACUC Guidelines

The ACUC has recently adapted the following revised guidelines. Please ensure that you and your staff review

these guidelines and incorporate as they apply to your research study.

- *Engraftment of Human Cells or Tissues into Immunodeficient Mice*

These guidelines can be found at the following site: <http://web.ncifcrf.gov/rtp/lasp/intra/acuc/fred/guidelines/nci.asp>

## Animal Welfare Concerns & OLAW Notification

Dr. Reynolds recently disseminated a notification "[Reporting Animal Concerns](#)" in regards to reporting animal welfare concerns and subsequent reporting to the NIH Office of Laboratory Animal Welfare as applicable. While a copy of this notice has been posted at the entrance of each Frederick animal facility, all investigators must make certain that his/her staff are familiar with the practices and procedures for ensuring humane research as outlined in this notification.

## Training in Survival Rodent Surgery

The NIH Office of Animal Care and Use and the National Human Genome Research Institute created a training tool to assist researchers in developing proper surgical skills when performing survival surgery on rodents. The CD illustrates the most common practices used in the NIH intramural research program and consists of three training modules:

- *General Training in Survival Rodent Surgery*
- *Simple Suture Patterns for Rodent Surgery*
- *Special Considerations for Aseptic Surgery in a Transgenic Mouse Facility*
- *Plus a table of contents, a list of definitions, help and references*

### NCI-Frederick Animal Care and Use Links

[Home Page](#)  
[Guidelines and Recommendations](#)  
[Alternatives](#)  
[Training](#)  
[Forms](#)

The ACUC is always interested in new members to assist the committee. If you are willing to volunteer as an ACUC member or to participate in any of its subcommittees, please contact the [NCI-Frederick ACUC Office](#)

### Regulations and Policies Links

[Animal Welfare Act](#)  
[Public Health Service Policy](#)  
[Guide for the Care and Use of Laboratory Animals](#)  
[U.S. Government Principles](#)



For additional details on the NCI-Frederick ACUC requirements for aseptic technique, please refer to the [Recommendations for Aseptic Technique and Post-Operative Care for Rodent Surgery](#) or contact the LAM veterinary staff at 301-846-5195.

If you are interested in receiving a copy of this CD, please contact the [ACUC Office](#) for additional information.

## Animal Health Reports

To facilitate animal health reporting for Bethesda and Frederick animal holding locations, online health reports (by building) are available to investigators and animal users.

The *NIH Rodent Health Surveillance Web System* (for Bethesda facilities) can be accessed at [http://dvrnet.ors.od.nih.gov/health\\_surv.asp](http://dvrnet.ors.od.nih.gov/health_surv.asp) and the *Animal Health Diagnostic Laboratory* (for Frederick facilities) can be accessed at <http://web.ncifcrf.gov/rtp/lasp/intra/ahdl/reports.asp>.

## Antibody Production - Adjuvants

The *Institute for Laboratory Animal Research (ILAR) Journal* recently published "Immunization Procedures and Adjuvant Products" (Volume 46 Number 3) to provide an overview of immunization procedures and adjuvant products. While Freund's complete and incomplete adjuvants are commonly used in biomedical research to enhance immune response, their use may produce undesirable effects (i.e., inflammatory lesions) that can result in pain or distress to your animal model. Therefore, the ACUC would like to provide the following list of alternative adjuvants (this list is not comprehensive) for investigators to consider when proposing antibody production studies. While these alternatives may not be appropriate for

your study, it is important for investigators to consider the potential alternatives available and whether or not they could be utilized to alleviate pain and/or distress. Additional information on each of the adjuvants listed can be obtained by clicking the name below.

[Specol](#)

[Montanide ISA Adjuvants](#)

[TiterMax and TiterMax Gold](#)

[RIBI Adjuvant System](#)

[Syntex Adjuvant Formation](#)

[Gerbu Adjuvants](#)

[ISCOMs](#)



[ALUM](#)

[SuperCarrier](#)



[Elvax](#)

[L-tyrosine](#)



[Montanide](#)

[AdjuPrime](#)

[Nitrocellulose-absorbed protein](#)



For additional information or to obtain a copy of the *ILAR Journal* referenced above, please visit [http://dels.nas.edu/ilar\\_n/ilarhome/](http://dels.nas.edu/ilar_n/ilarhome/). Please also refer to the ACUC [Guidelines for Ascites Production](#) if proposing the ascites method for monoclonal antibody production.

## Aging Mouse Models

It is not uncommon for investigators at the NCI-Frederick to utilize animal models that will be observed for adverse phenotypes or effects throughout the span of their natural life. However, it is important to note that as with humans, animal models are subject to develop various adverse health conditions that are directly correlated to the aging process itself. Furthermore, various

strains are prone to develop specific diseases that can adversely affect an investigator's research objectives. For example, the C57BL/6 mouse can develop ulcerative dermatitis<sup>1</sup> and the F344 rat model has been noted to develop nephropathy and testicular tumors<sup>2</sup>. Selecting the incorrect animal model can result in the premature euthanasia of your animals to ensure humane endpoints and therefore significantly affect your research data. Therefore, it is imperative that the investigator insures that the appropriate strain has been selected for use in his/her research study. If your studies require a specific background that is known to develop age-related diseases, the investigator must be aware of the potential health concerns and address the health issues with the veterinary and technical staff in advance. For additional information on aging animal models, please refer to the [ILAR Journal – Animal Models of Aging Research](#).

<sup>1</sup> Lawson GL, et al. 2005. Vitamin E as a Treatment for Ulcerative Dermatitis in C57BL/6 Mice and Strains with a C57BL/6 Background. *Contemporary Topics* 44(3):18-21.

<sup>2</sup> Weindruch R, Masoro EJ. 1991. Concerns about rodent models for aging research. *J Gerontol Biol Sci* 46:B87-B88.

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